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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                           | CONFIRMATION NO.                          |
|---|-------------|----------------------|---|---|
| 10/520,069  | 01/03/2005  | Douglas S. Hubbell   | 696-262A                                      | 5123                                      |
| <div>7590      11/09/2007</div> <div>Alan B Clement<br/>Hedman &amp; Costigan<br/>1185 Avenue of the Americas<br/>New York, NY 10036-2646</div> |             |                      |   |   |
|   |             |                      | <div>EXAMINER</div> <div>BHAT, NINA NMN</div> |   |
|   |             |                      | <div>ART UNIT</div> <div>1797</div>           | <div>PAPER NUMBER</div>                   |
|   |             |                      | <div>MAIL DATE</div> <div>11/09/2007</div>    | <div>DELIVERY MODE</div> <div>PAPER</div> |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/520,069

Applicant(s)

HUBBELL ET AL.

Examiner

N. Bhat

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) 2-10 and 12-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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**DETAILED ACTION**

1. Claims 1, 11, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In Claims 1 and 19, applicant recites a baffle wall in the interior space and in proximity to the outer wall of the vessel thereby creating an annular space between "an outer side of said baffle wall and an inner said of said outer wall for receiving at least one dilution stream" this phrase is very confusing and it is not clear what applicant is trying to claim. What is meant by "and an inner said of said outer wall". Applicant is kindly asked to look at the figure and then draft the claim with respect to the baffle wall, the vessel walls and which inner and outer wall is being described is it the reactor vessel or is applicant referring to the baffle wall. The claim is awkward and cumbersome. With respect to the phrase "at least one dilution stream inlet extending through the outer wall for delivering said dilution stream", the wording is cumbersome "said stream which is a vapor having a dew point temperature that is less than that of a combined vapor stream" Applicant should when drafting the claim, the location of dilution stream with respect to the baffle and the vessel and then recite that the dilution stream is a vapor having a dew point temperature which is greater than the mixed stream, etc. Suitable correction is required. Applicant is also encouraged to indicate the first fluid stream inlet, the second fluid stream inlet, the temperatures or dew points or phase of the stream and its cooperative association with the vessel and/or apparatus. Also with respect to temperatures and conditions, applicant should provide the element in the apparatus which ensures the dew point etc. to be what is being recited, i.e. applicant should recite first and second fluid temperatures and apparatus limitations which provide the first and second fluids at the conditions desired by applicant, or that the dilution stream includes a heater or heat exchanger which provides the specific dilution stream characteristics and properties. In claims

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11 it is unclear what applicant means that the dilution stream has a dew point which is greater than the "combined stream", does this mean that the dilution stream has a dew point temperature which is greater than the first and second stream? Similarly in claim 20, applicant recites that when the two streams the dilution stream has a solidification point temperature that is less than the temperature of a final combined liquid stream, what is mean by "final" is this the first and second steam mixed with the dilution stream? It appears from the specification that the solidification temperature is less than the first fluid stream and second fluid stream. Suitable explanation and correction is required.

2. Claims 2-10 and 12-18 are objected to as being dependent upon a rejected base claim.
3. Claims 1, 11, 19 and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
4. Claims 2-10 and 12-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
5. The following is an examiner's statement of reasons for allowance: The prior art fails to teach and/or suggest a method and apparatus which creates a vapor stream by mixing fluid streams of different composition to reduce or minimize fluid condensation by combining the fluid streams and introducing a hot vapor (dilutions stream) into an annular shaped shell or baffle region surrounding a fluid mixing region. The baffle shields the entire interior pressure wall of the mixing vessel from possible contacts with both the injected streams and fluid mixture in the core of the mixing vessel, while the hot vapor (dilution stream) being added to the baffle region keeps the baffle hot enough to prevent condensation on the mixing region side of the baffle. The construction and arrangement of the reactor, the first and second fluid inlet and outlet,

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baffle region, mixing region as claimed has not been taught or suggested either singularly or in combination by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stell et al. which does not qualify as prior art, teaches reducing or eliminating partial vapor condensation during flashing by adding a heated vaporous diluent to dilute and superheat the vapor. Kenny et al. teach an apparatus and method of analysis of expired breath in breathing devices wherein baffles can be used at the inlet and exit tubes to promote mixing, and condensation of the exhaled water vapor is minimized, the apparatus as described not anticipate nor render obvious applicant invention as claimed.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
N. Bhat  
Primary Examiner  
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